TPM/IPM Weekly Report
for Arborists, Landscape Managers & Nursery Managers

Commercial Horticulture

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Regular Contributors:
Pest and Beneficial Insect Information: Stanton Gill and Paula Shrewsbury (Extension Specialists) and Nancy Harding, Faculty Research Assistant
Disease Information: Karen Rane (Plant Pathologist) and David Clement (Extension Specialist)
Weed of the Week: Chuck Schuster (Extension Educator, Montgomery County)
Cultural Information: Ginny Rosenkranz (Extension Educator, Wicomico/Worcester/Somerset Counties)
Fertility Management: Andrew Ristvey (Extension Specialist, Wye Research & Education Center)
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Happy May 1st
By: Stanton Gill, UME

Well, we reached the first of May...time to celebrate. Everyone seems to have bad feelings toward the winter, but this spring is turning out to be rather pleasant. I have seen forsythia remain in bloom for the longest period I can remember. Serviceberry had a spectacular flower bloom display in mid-April and the blooms stayed open for extended periods. We made it through the dangerous time for fire blight infection on the serviceberries this year which is something that has not happened for the last three years.

IPMnet is now on Facebook at http://facebook.com/umdipm
Brown Marmorated Stink Bug
By: Stanton Gill
We received a couple of e-mails telling us that brown marmorated stink bugs started a little activity in homes last week, but numbers were very, very low. The overwintering population of brown marmorated stink bugs has dropped tremendously from the “plague” levels we experienced in 2010. If you are seeing large populations in your area we would love to know about it. Send me an email at Sgill@umd.edu.

Fall Cankerworm
Luke Gustafson, University of Maryland Extension, reports that fall cankerworms (*Alsophila pometaria*) have emerged in Charles County and have started to feed. He noted that so far they are just 1-1.5 cm in length and that populations were high in 2013 and 2014. Ben Beale, St. Mary’s County Extension, had reported high populations back in 2012. Luke has had several people call and walk in with questions on them so far. We usually get reports of high cankerworm populations from Anne Arundel, Prince George’s, Charles and St. Mary’s counties. Often, since feeding occurs early in the season, trees are able to recoup. However, after three years of heavy infestations in the same area, trees will be weakened, and secondary borers are likely to become a problem.

Monitoring: Common trees on which this species prefers to feed are white and red oaks, elm, ash, basswood, beech, black cherry, red maple, and sugar maple. It will also feed on the leaves of apple, birch, boxelder, dogwood, hickory, and many other hardwoods. The larvae are light green to sometimes dark brownish green. The light green forms have white lines along the body. Brown forms have a broad black stripe on the back. Fall cankerworms larvae have 3 pairs of prolegs at the end of the abdomen whereas spring cankerworms only have two. The adult female is wingless and lays eggs in the fall.

Control: Conserve and Bt can be used if needed.
Peach Tree Borer – New Control Method
By: Stanton Gill, UME

Robin Rosetta, Oregon State University Extension, sent me an email this week after she read our article in last week’s IPM report about peachtree borer in cherry laurel. In Oregon they are experimenting with using pheromone traps to disrupt mating and it appears to be working. This method might be worth trying out in Maryland. If you would like to work with us on this project send me an e-mail at Sgill@umd.edu. We would need nursery sites with a lot of susceptible trees.

Here is Robin’s email on the subject:
After I stopped drooling at yet another wonderful issue of (Weekly IPM Alert from Maryland) plant calamities that you all pull together so well, I thought I should mention another option for your growers. We conducted research in our nurseries out here to evaluate the efficacy of mating disruption for peach tree borer (PTB) on several hosts including laurel. I can’t take credit for the original idea as one of our talented shade tree growers tested it out first. My effort was to measure and evaluate the program with replicated trials and conducted additional trials to expand it to the laurel production system. We were pleased with the results, which allowed many of our growers to dispense with PTB sprays altogether. Yep, no more sprays. Only had time to look for a couple of years but I think it is a program that many growers can adopt. At the time, we had more consistency with the shade tree program vs. laurel but that may be due to the particulars of that specific on-farm trial.

More information is available at my website. Also at the website is a brochure that I thought might be useful for growers wanting to adopt the practice. http://oregonstate.edu/dept/nurspest/peach_tree_borer.htm

Boxwood Psyllid
Steve Sullivan and Richard Chaffin, The Brickman Group, found boxwood psyllid nymphs starting to feed this week on terminal growth of boxwood. The boxwood psyllid causes tip growth to cup and curl. Look for a white, waxy material that the psyllids produce within the cupped leaves. Damage is rarely significant enough to warrant treatment.

Boxwood psyllids cause cupping of tip growth. Also note the stippling damage from boxwood spider mites on the leaf on the right. Look in boxwood tips for the small nymphs and waxy material they produce. Photo: Steve Sullivan, The Brickman Group
Boxwood Leafminer
Another pest on boxwood is the boxwood leafminer. Marie Rojas, IPM Scout, is still finding it in the pupal stage on plants in Montgomery County. We are also seeing it in the pupal stage here in Ellicott City. We have not had reports of adults yet.

Spiny Witchhazel Gall Aphid
Marie Rojas, IPM Scout, is reporting spiny witchhazel gall aphid activity on ‘Heritage’ birch and noted that they are just beginning to cause that classic cupping/reddening on the leaves. Witchhazel is the alternate host for this aphid where it causes a spindle gall on the top side of foliage. This aphid causes red puckering damage to the foliage of birch and the woolly aphids can be found on the undersides of the leaves.

Control: Most often, control is not necessary. Many natural enemies such as lady bird beetles, syrphid flies, soldier beetles, and parasitic wasps are active this time of year and usually move into the area to reduce the aphid populations. If populations are high, use a low impact material like horticultural oil to minimize the effect on the beneficial insects that are present.

Yellow-bellied Sapsucker Damage on Hollies
Jim Taylor, Garner Exteriors, found yellow-bellied sapsucker damage on Holly ‘Dragon Lady’ in Severna Park. Sapsuckers make two types of holes; round holes that go deep into the tree that are not enlarged in which sapsuckers probe for sap; and shallower rectangular holes that are maintained continually for the sap to flow
Woolly Aphid
Nancy Harding, University of Maryland, is finding woolly aphids on *Crataegus viridis* ‘Winter King’ in Bowie this week. Jessica Frakes, Thrive, Inc., is finding them on hawthorns in Chevy Chase. Woolly aphids are small pear-shaped insects and produce waxy secretions giving them a fluffy cottony appearance that serves as a deterrent to predators. This aphid causes the foliage to curl and turn purplish red. Heavy infestations rarely occur as their numbers are kept low with natural predators like lacewings, lady beetles, hover flies and parasitic wasps. However, if necessary, to reduce large infestations, insecticidal oil or soap sprays in the spring can be used.

**Woolly aphids produce waxy secretions as a deterrent to predators**
*Photos: Nancy Harding, UMD*

**Woolly aphids cause leaves on hawthorn to turn red**
*Photo: Jessica Frakes, Thrive, Inc.*

Eastern Tent Caterpillars
With the cool spring, Marie Rojas, IPM Scout, is still finding small nests of Eastern tent caterpillars which is making for a long emergence of this insect this spring.

*Acer palmatum* ‘Seiryu’
Marie Rojas, IPM Scout, is finding a little bit of reversion happening with *Acer palmatum* ‘Seiryu’ which is listed as a Japanese cutleaf maple cultivar with an upright habit and green foliage.

**Acer palmatum* ‘Seiryu’ trees that are reverting back to red foliage**
*Photos: Marie Rojas, IPM Scout*
Beneficial of the Week
By: Paula Shrewsbury, UMD

Are they bees or flies buzzing around my flowers?
As temperatures warm and plants continue to come into bloom and flush their leaves I am seeing more and more insect activity. Yeah! In particular, this week I have seen a lot of syrphid fly adult activity. Syrphid flies are also known as flower or hover flies. These insects are in the order Diptera (true flies) and the family Syrphidae. There are many species of syrphid flies and their size as adults can range from about ¼” to almost ¾”. Syrphid flies have pretty interesting biologies. For example, although they are true flies, as adults they are bee mimics. So the question arises “If you are a fly why would you want to look like a bee?” Many bees have stingers which when threatened they use as a defense. Predators have “learned” that bees can sting and may be less likely to mess with them. Fly adults are defenseless (no stingers) so it is to the flies’ benefit to look like a bee that has a defense. Very smart! Syrphid fly adults also behave like bees. They feed on the nectar and pollen of flowers. They are commonly seen visiting and hovering around flowers, hence their common names of hover or flower fly.

To determine if you are looking at a bee or a fly that mimics a bee the most obvious character is the number of wings. Fly adults have one pair of wings, bees have two pair of wings. Also in place of the second pair of wings flies have halteres. Halteres are a pair of little stubby structures that are found just behind the first pair of wings and are usually a light white – yellow color. Syrphid fly adults are not predaceous, they only feed on nectar and pollen and are good pollinators. In fact, they must feed on floral resources to obtain the nutrients they need to make eggs and reproduce. Syrphid fly females cue in on branches infested with aphids, spider mites, or other potential food for their larvae. The adult female will lay small white eggs individually on the leaves or buds of
Soil temperatures continue to fluctuate in the low to mid 50 °F range. I have not seen any crabgrass germinating yet in central Maryland, but knowing that the Eastern Shore warms up earlier, locations in central Maryland need to be watching carefully.

The weed for this week is a new emerging weed in the region. Palmer amaranth, *Amaranthus palmeri*, is a member of the pigweed family. A native of the Sonora Desert in the Southwestern United States, it is currently found in Delaware and the Eastern Shore of Maryland. While it is an edible plant, it is also an invasive that is causing a great deal of problems. It is a summer annual broadleaf weed that is extremely competitive and capable of dominating sites it invades. It is considered to be the fastest growing of the pigweed family. It is competitive because of its aggressive growth following the seedling stage. Palmer amaranth is closely related to the pigweed family of weed species found throughout the mid-Atlantic area. Similar in appearance to smooth or redroot pigweed, this plant differs in that it is dioecious, having separate male and female plants. Male plants produce pollen that is moved by the wind to female plants. Differing also from the other familiar pigweeds, Palmer amaranth does not have hairs on the leaves, stems and petioles. Palmer amaranth also has long petioles that are often as long or longer than the leaf blade itself. The leaves will appear to droop. Some plants will present with a variegated “V” mark (watermark) or a dark red patch. Spiny amaranth can also present with this type of a watermark. One can properly identify the spiny amaranth by the pair of ¼ to ½ inch long spines that the base of the lead petioles on the main central stem. (photo 4) This plant can grow to heights of ten feet, with
seed heads ranging from six inches to 1.5 feet in length. IT should be remembered that only the female plant produces seed, but each seed plant can produce over 600,000 seeds in an optimum season. (No that is not a mistake, 600,000.) {Photo 3} Palmer amaranth will germinate from seeds that land on the soil surface, and up to two inches in depth. The viability of this plants seed seems to be only for about three years. Palmer amaranth has a shallow taproot as well as a fibrous root system. The leaves of Palmer amaranth are alternate on the stem and oval in general outline. Each leaf will be up to two and one half inches in length, without hairs and on a long petiole. Female Palmer amaranth develops short stiff prickly bracts on the stem branches. (Photos 1 & 2)

Prevention is key in controlling the movement of this weed. Know from where nursery stock comes and that it is free of this weed. Equipment movement from areas where this weed is found is another method of movement for this plant. Wildlife can also move it from place to place, but one has little control of this situation. Manure and farm products including hay and straw are other means of movement of this plant.

Cultural control in turf and landscapes will include a dense stand of turf that provides shade to the soil. Mulch in landscape settings can decrease seed germination. Immediate removal of the very young plants will help prevent any seed from developing. Palmer amaranth develops resistance to herbicides quickly based upon experience in the agriculture sector. Chemical control in turf should include products that contain 2,4-D, banvel, and a surfactant. In landscapes, glyphosate products alone will not provide adequate control. Sureguard (Flumioxazin) is labeled for use in landscapes and research has shown that it has ability to control Palmer amaranth.
Plant of the Week
By: Ginny Rosenkranz

Heuchera and Tiarella are both shade loving plants that need organically rich, moist well drained soils. Both bloom in the mid to late spring. Plant breeders have had fun blending these two genera (intergeneric hybrid) to create x Heucherella, a plant with both the positive aspects of the parents and quite a few pluses. The plants of x Heucherella or foamy bells are usually very compact and delicate with deeply lobed, very colorful leaves, creating form and color in the light afternoon shade garden even after the flowers have bloomed. x Heucherella ‘Tapestry’ has tri-colored leaves with a silver coloring in the center, dark purple along the main veins that radiate on to the silver center and a medium green on the outside. Early spring and fall cool weather causes the purple veins to expand over the leaf surface and to intensify. As the weather warms up the leaves turn a softer blue green color. ‘Tapestry’ is a compact semi-evergreen perennial that grows in a mounding clump 7 inches tall and 16 inches wide. It thrives in USDA zones 4-9. In mid to late spring ‘Tapestry’ shoots up slender dark stems covered with dark pink buds that open to clear pink bell-shaped flowers that spread open to star shapes. It attracts butterflies to the garden and can be used as a border plant, an edging plant or massed together for color all spring, summer, fall, and in the southern parts of Maryland, the winter. Problematic pests for Heuchera and Tiarella and therefore x Heucherella include mealybugs, root weevils, foliar nematodes, rust, root rot, and fungal and bacterial leaf diseases.

Correction from April 24th report:
Ron Gatto, Delaware County, PA, noted that regarding Daphne genkwa, the man’s name is Hackenberry, not Kackenberry as listed.

Come Out and Look at the Active Insects and Diseases on May 20th
By: Stanton Gill, UME

David Clement, Karen Rane, Mary Kay Malinoski and I will be working with the Maryland Arborist Association conducting an evening IPM Pest ID session in Baltimore County. There will also be presentations on handling pesticide spills by professional arborists with Davey Tree Expert Company and dealing with vines in trees by David Driver of Arbor-X. See the [Maryland Arborist Association](contact information) site for registration information.

**Great Looking Lawns Using Bay-Friendly Practices**
Saturday, May 2, 2014
10:00 am – 12:00 pm
Learn about lawn care at the National Arboretum from University of Maryland Experts Free, but space is limited and registration is encouraged. Call 202-245-5965 to register
Phenology

<table>
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Degree Days (As of April 30)

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To check degree day (DD) accumulations in your local area go to: [http://www.yourweekendview.com/outlook/agriculture/growing-degree-days/](http://www.yourweekendview.com/outlook/agriculture/growing-degree-days/). Note: degree days reported in this newsletter use a base temperature of 50 °F, a start date of January 1st, and the date of monitoring as the end date.

Upcoming Conferences:

**MAA Pest Walk**
May 20, 2015
Location: Irvine Nature Center, Owings Mills, MD

**Eastern Shore Pest Walk**
June 3, 2015
Location: Salisbury, MD
Contact: Ginny Rosenkranz, 410-749-6141

**Procrastinator’s Pesticide Recertification Conference**
June 5, 2015
Location: Montgomery County Extension Office
Contact: Chuck Schuster, 301-590-2807
**A brochure is on-line**

**Eastern Shore Pest Management Recertification Conference**
June 12, 2015
Location: Wye Research and Education Center, Queenstown, MD
Contact: Ginny Rosenkranz, 410-749-6141

**MNGLA Nursery Field Day**
June 17, 2015
Location: Clear Ridge Nursery, Union Bridge, MD

**Greenhouse Tour and MNGLA Picnic**
June 25, 2015
Location: Greenstreet Growers, Lothian, MD

**Summer Meeting of the Maryland Christmas Tree Association**
June 27, 2015
Location: Pine Valley Christmas Trees, 342 Blake Road, Elkton, MD 21921
Meeting includes a 60th MCTA Anniversary celebration. For more information: [GaverTreeFarm@aol.com](mailto:GaverTreeFarm@aol.com) or [http://www.marylandchristmastrees.org/](http://www.marylandchristmastrees.org/)

**Alternative Greenhouse Crops Conference**
August 5, 2015
Location: Brookside Gardens, Wheaton, MD

**LCA Hands-on Training Seminar**
September 16, 2015
Location: Johns Hopkins University, Montgomery County Campus
The information given herein is supplied with the understanding that no discrimination is intended and no endorsement by University of Maryland Extension is implied.

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